DATE: 05-01-09 API #: 47-017-05814

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Dennis & Mellie Powell	Operator Well No.: Powell #7				
LOCATION: Elevation: 805'	Quadrangle: Smithburg 7.5'				
District: Grant	County	: Doddridge			
Latitude: 4,660 Feet South of	39 I	Deg. 17 !		Sec.	
Longitude 6,690 Feet West of	80 I	Deg. 40 l	Min. 00	Sec.	
					
Company: Tapo Energy, Inc.	Casing &	Used in	Left in well	Cement fill	
Tapo Energy, Inc.	Tubing	drilling		up Cu. Ft.	
Address:					
P.O. Box 235 West Union, WV 26456	13 3/8				
Agent: Jerry Poling					
Inspector: David Scranage /	9 5/8	465	465	400 sks	
Date Permit Issued: 03/02/09				200 1-	
Date Well Work Commenced: 03/19/09	6 5/8	1790	1790	300 sks	
Date Well Work Completed: 03/26/09				CE also	
Verbal Plugging:	4 1/2	6534	6525	65 sks	
Date Permission granted on:					
Rotary X Cable Rig					
Total Depth (feet): 6534					
Fresh Water Depth (ft.): 15'				1 F B	
			RECEIVE		
Salt Water Depth (ft.): N/A		Of	lice of Oil	k Gas	
			 		
Is coal being mined in area (N/Y)? N			NOV 2 0 2	112	
Coal Depths (ft.): N/A					
	1	1 30/	 Bosott	ant Of	
		ĀA	A Deham	antodion	
OPEN FLOW DATA		Envir	V Departm onmental I	Protection	
m	P:	av zone depth	(ft) 6462-6518	ft.	
Producing formation Marcellus	d Oil: Initial o	nen flow	Bbl/d		
		en flow	Bbl/d		
Time of open flow between initial and	Illiai (ests				
Static rock Pressure 1000# psig (surface	se pressure) ar	101 40 110	 5		
	Dox	y zone depth (በ)		
Second producing formation		pen flow	Bbl/d		
Gas: Initial open flow MCF/d Oil:		pen flow	Bbl/d		
Final open flow MCF/d		Hou			
Time of open flow between initial and	mai tests		ours		
Static rock Pressurepsig (surfa	ice pressure) a	Trei	ouis		
* = commingled zones NOTE: ON BACK OF THIS FORM PUT THE	FOLLOWING	: 1). DETAILS	OF PERFORA	ΓED	
INTERVALS, FRACTURING OR STIMULATI LOG WHICH IS A SYSTEMATIC DETAILED	GEOLOGICA	AL RECORD (OF ALL FORMA	TIONS,	
LOG WHICH IS A SISTEMATIC DETAILED					
Signed:					
Signed.					
Date: LOS OF UG					

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/13/2012	0_{I}
API #:	47-017-06026	D

OCATION: Elevation: 880'	Quadrangle: Folsom 7.5'			
District: McClellan	County: Dodding	idge		
Latitude: 10398 Feet South of 39 Deg. 2				
Longitude 11026 Feet West of 80 Deg. 3	Min.	30 Sec		
Company: Antero Resources Appalachian Corp			•	
Address: Antero Resources Apparacinan Corp	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	404'	404'	561 Cu. Ft. Class A
Inspector: Sam Ward	9 5/8" 36#	2,796'	2,796'	1138 Cu. Ft. Class A
Date Permit Issued: 6/6/2011, 1/26/2012 (Drill Deeper Permit)	5 1/2" 20#	15,246'	15,246'	3704 Cu. Ft. Class H
Date Well Work Commenced: 7/27/2011		·		
Date Well Work Completed: 6/9/2012	2 3/8 4.7#	7052'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig		-		
Total Vertical Depth (ft): 7047 TVD (deepest point drilled)				
Total Measured Depth (ft): 15246' MD, 7047' TVD (BHL)				
Fresh Water Depth (ft.): 77'				
Salt Water Depth (ft.): est. 1018'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): est. 138', 253', 411', 482', 520'				
Void(s) encountered (N/Y) Depth(s) N, N/A			<u> </u>	
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay z. Gas: Initial open flow MCF/d Oil: Initial open flow	one depth (ft)6			sheet)
Final open flow 2669 MCF/d Final open flow		l/d		ш
Time of open flow between initial and final tests N/A	Hours			시 일 유
Static rock Pressure 3800 psig (surface pressure) aft	erHour	rs		OFFICE 2012 NOV WY DEI WIRONME
Second producing formation Pay zon				THE
Gas: Initial open flowMCF/d Oil: Initial open flo		ol/d		OF O
Final open flowMCF/d Final open flow Time of open flow between initial and final tests		Vd		REAL D
Static rock Pressure psig (surface pressure) aft		re		& GA

that the information is true, accurate, and complete.

Were core samples taken? Yes No Were cuttings caught during drilling? Yes No			
Were Electrical, Mechanical or Geophysi	ical logs recorded on this well? If y	res please list CBL	
This is a subsequent well. Antero only runs wireline logs on the first well	f on a multi-well pad (R. Swiger South Unit 1H API#47-017-056	92). PLease reference wireline logs submitted w	th Form WR-35 for R. Swiger South Unit 1H.
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO COAL ENCOUNTERED BY THE W	, PHYSICAL CHANGE, ETC. 2) RD OF THE TOPS AND BOT	. THE WELL LOG WHI TOMS OF ALL FORM	CH IS A SYSTEMATIC
Perforated Intervals, Fracturing, or Stimu	lating:		
Perforations: 7174'- 15,181' (1656			
Frac'd w/ 12,000 gals 15% HCL	Acid, 179,677 bbls Slick Wat	ter carrying 960,600#	100 mesh,
3,420,800# 40/70 and 1,899,600	# 20/40 sand.		
Plug Back Details Including Plug Type a	nd Depth(s): N/A		
Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			
Big Lime	1,763'	1,845'	
Big Injun	1,846'	2,294'	
Gantz Sand	2,295'	2,415'	
Fifty Foot Sand	2,416'	2,501'	
Gordon	2,502'	2,808'	
Fifth Sandstone	2,809'	2,846'	
Bayard	2,847'	3,604'	
Speechley	3,605'	4,056'	
Balltown	4,057'	4,314'	
Bradford	4,315'	4,789'	
Benson	4,790'	5,142'	
Alexander	5,143'	5,306'	
Elk	5,307'	5,948'	
Rhinestreet	5,949'	6,395'	
Sycamore SS	6,396'	6,622'	
Middlesex	6,623'	6,776'	
Burket	6,777'	7,047' TVI)
Tully	6,804'	6,881'	
Hamilton	6,882'	6,926'	
Marcellus	6,927'	7,047' TVI	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· •	•	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/13/2012	υ
API#:	47-017-06043	

CATION: Elevation: 880'	Quadrangle: Folsom 7.5'			
District: McClellan	County: Doddr			
Latitude: 10408 Feet South of 39 Deg. 3				
Longitude 11026 Feet West of 80 Deg.				
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	42'	42'	40 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	440'	440'	611 Cu. Ft. Class A
Inspector: Sam Ward	9 5/8" 36#	2,800'	2,800'	1140 Cu. Ft. Class A
Date Permit Issued: 1/11/2012	5 1/2" 20#	14,186'	14,186'	3411 Cu. Ft. Class H
Date Well Work Commenced: 3/4/2012				
Date Well Work Completed: 5/23/2012	2 3/8" 4.7#	6864'		
Verbal Plugging: N/A	****			
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 6901' TVD (deepest point drilled)				
Total Measured Depth (ft): 14186' MD, 6893' TVD (BHL)				
Fresh Water Depth (ft.): 42'				
Salt Water Depth (ft.): est. 745'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): est. 138', 253', 411', 482', 520'				
Void(s) encountered (N/Y) Depth(s) N, N/A				
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow MCF/d Final open flow Time of open flow between initial and final tests N/A Static rock Pressure psig (surface pressure) af	zone depth (ft)6 low N/A Bl N N/A Bb Hours ter Hour ne depth (ft) Bb	5777' TVD (To bl/d ol/d rs bl/d bl/d	p)	OFFICE OF C
Static rock Pressure psig (surface pressure) af		rs	Ž	

Signature

Were core samples taken? Yes	No_X Were cu	uttings caught during drilling? Yes	No_X
Were Electrical, Mechanical or Geophysi		ves please list CBL	
This is a subsequent well. Antero only runs wireline logs on the first we	I on a multi-well pad (R. Swiger South Unit 1H API#47-017-05	692). PLease reference wireline logs submitted with Form WR-	35 for R. Swiger South Unit 1H.
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO COAL ENCOUNTERED BY THE W	, PHYSICAL CHANGE, ETC. 2 RD OF THE TOPS AND BO). THE WELL LOG WHICH IS TTOMS OF ALL FORMATION	A SYSTEMATIC
Perforated Intervals, Fracturing, or Stimu	ılating:		
Perforations: 6,923'-14,122' (144-			
Frac'd w/ 11,000 gals 15% HCL	Acid, 157,806 bbls Slick Wa	ter carrying 775,900# 100 m	iesh,
3,497,400# 40/70 and 2,289,600	# 20/40 sand.		
Plug Back Details Including Plug Type a	and Depth(s): N/A		
Danistiana Empountored:	Top Depth	/ Bot	ttom Depth
Formations Encountered: Surface:	T Op Deptil		
Big Lime (est.)	1,765'	1,8	
Big Injun (est.)	1,842'	2,30	
Gantz Sand (est.)	2,303'	2,43	
Fifty Foot Sand (est.)	2,417'	2,50)5'
Gordon(est.)	2,506'	2,82	26 '
Fifth Sandstone (est.)	2,827'	2,8!	50'
Bayard (est.)	2,851'	3,6	18'
Speechley (est.)	3,619'	4,04	47'
Balltown (est.)	4,048'	4,3:	14'
Bradford (est.)	4,315'	4,78	86'
Benson (est.)	4,787'	5,1	38'
Alexander (est.)	5,139'	5,3	06'
• •	5,307'	5,9	
Elk (est.)	5,954'	6,3	
Rhinestreet (est.)	6,396'	6,63	
Sycamore SS	6,623'	6,7	
Middlesex	6,777'	•	01' TVD
Burket	0,777	-,-	

Date: October 24, 2012

API #47 - 033 - 00536 F

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name:

M. Randolph

Operator Well No.: 11224

LOCATION:

Elevation:

1292'

Quadrangle:

Mount Clare 7.5'

District:

Grant

County: Harrison

Latitude:

39.1300223

Feet South of 39 Feet West of

Dea. **10** Min. Sec.

Longitude:

80.3444437

Deg.

20 Min.

00-Sec.

Company: Dominion Transmission Inc.

445 West Main Street Clarksburg, WV 26301 Casing & **Tubing** Size

13-3/8"

8 5/8"

Used In **Drilling**

342'

1971'

Left In Well

342'

1971'

Fill Up Cu Ft

CTS

CTS

Cement

Agent: James D. Blasingame

Inspector: Tristan Jenkins

Permit Issued: 03/20/12

Well Work Commenced: 09/25/2012

Well Work Completed: 10/09/2012

Verbal Plugging

N/A

Permission granted on: 05/20/2012 Rig X

Rotary

Cable

4-1/2"

2414'

150 sks. **CBL POZ TOC 1320'**

Total Depth (feet): 2414

Total Measured Depth (feet): 2400

Fresh water depths (ft) Behind casing Salt water depths (ft) Behind casing Is coal being mined in area (Y/N)? N

Coal Depths (ft): N/A

Void(s) encountered (N/Y) Depth(s): N/A

OPEN FLOW DATA

Producing formation Initial open flow Gas:

5th Sand MCF / D Pay zone depth (ft) 2300

N/A N/A

Final open flow 231

MCF / D

Oil: Initial open flow Oil: Final open flow

Bbl / D Bbl / D

Hours

Time of open flow between initial and final tests 24 Static rock pressure 150 psig (surface pressure) after 24

Hours

Second producing formation Initial open flow Gas:

MCF / D

Pay zone depth (ft) Oil: Initial open flow Oil: Final open flow

Bbl / D

Final open flow Time of open flow between initial and final tests

MCF / D

information I believe that the information is true, accurate, and complete.

Bbl / D Hours

Static rock pressure

psig (surface pressure) after

Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for btaining the

DTI Well # 11224 (47-033-00536)

Were core samples taken? Yes No	X Were cuttings	caught during	drilling? Yes No X
Were Electrical, Mechanical or Geophysic	cal logs recorded on this v	well? If yes, ple	ease list Yes
Perforated Intervals, Fracturing, or Sti	mulating:		
1) 5 th Sand 2294'-2304' (20 holes	s) sand and water, 31,00	0# 20/40 sand	, 410 bbl. water
FORMATIONS Encountered:	Top Depth		Bottom Depth
·			

This was a rework on the well no drilling took place.

OFFICE OF OIL & GAS

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	10/16/2012
API#:	47-033-04927

arm name: Diana Goff Cather - TRST	Operator We	Il No.: Goff 4	2	
OCATION: Elevation: 1360 GL	_ Quadrangle:	Wolf Summit	7.5'	
District: Coal	County: Ha	rrison		
Latitude: 3,150 Feet South of 39 Deg.	17 Mir		ec.	
Longitude 3,550 Feet West of 80 Deg	Mir	ı. <u>30</u> S	ec.	
Company: Petroleum Development Corporation				
Address: 120 Genesis Boulevard	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	13 3/8"	22'	22'	Sanded in
Agent: Bob Williamson	9 5/8"	276'	276'	139
Inspector: Tim Bennett	7"	1161'	1161'	347
Date Permit Issued: 09/10/2007	4 1/2"	4833'	4833'	368
Date Well Work Commenced: 08/25/2009				
Date Well Work Completed: 08/27/2009				
Verbal Plugging: N/A				
Date Permission granted on:				
Rotary Cable Rig 🗸				
Total Vertical Depth (ft): 5225'	!			
Total Measured Depth (ft): 5225'				
Fresh Water Depth (ft.): 35', 420', 890'				
Salt Water Depth (ft.): None Reported				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 480', 930'				
Void(s) encountered (N/Y) Depth(s) 234' -244'			-	
OPEN FLOW DATA (If more than two producing formati	zone depth (ft)	2482'		
Final open flow 60 MCF/d Final open flo		bl/d		EIVED
Time of open flow between initial and final tests Static rock Pressure NT psig (surface pressure) a			Uttice of	Oil & Gas
Second producing formation Gordon (comingled) Pay 20			NOV 1	5 2012
Gas: Initial open flow MCF/d Oil: Initial open	flowB	lbl/d	MAY Done	artmont of
Final open flow MCF/d Final open flo		bl/d □		artment of tal Protectio
Time of open flow between initial and final tests	Hour	s 🖵		iai f i Ul o UllU

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

11/15/2012 Date

Signature

Were core samples taken? Ye	esNo_XX	Were cu	ttings caught durin	g drilling? Yes	_ _{No_} XX_
Were Electrical, Mechanical or 2640 to 2100.	r Geophysical logs records	ed on this well? If y	es, please list JW	Wireline GR/CC	L log from
NOTE: IN THE AREA FRACTURING OR STIMU DETAILED GEOLOGICA COAL ENCOUNTERED BY	LATING, PHYSICAL (L RECORD OF THE	CHANGE, ETC. 2) TOPS AND BOT	. THE WELL LO TOMS OF ALL	G WHICH IS A S' FORMATIONS,	YSTEMATIC
Perforated Intervals, Fracturing	g, or Stimulating:				
2009/08/25: MIRU Weatherford F	racturing Technologies crev	w and JW Wireline Co	mpany. Pressure te	sted casing and ran a	correlation log.
Set a composite bridge plug @ 256	69'. Perf 4th Sand at 2482-28	542 w/22 holes. RU W	eatherford & pump 1:	2 bbls 15% HCl ahead	of an N2 assist
linear AquaFrac w/ 50,255 lbs of 30	0/50 sand, 156,420 SCF N2,	& 487 bbls treated fluid	i. Break at 1,775psi 8	avg treating foam rate	was 19.9 BPM
& ATP was 2,377 psi. Drop 12 bbls	28% HCL. ISIP = 1,714 psi. S	Set composite flow throu	igh frac plug @ 2320'	. Perf Gordon at 2286-2	296 w/20 holes.
RU Weatherford & pump an N	12 assist linear AquaFrac	w/ 31,658 lbs of 30	/50 sand, 132,915	SCF N2, & 479 bbls	s treated fluid.
Break at 2,420 psi & avg. trea	ating foam rate was 20.2	2 BPM & ATP was	2,750 psi. ISIP =	= 1,926 psi. RDMO	Weatherford.
Plug Back Details Including Pl	lug Type and Depth(s):				
Comp. Bridge Plug @ 2569' &	& Comp. Flow Thru Frac	Plug @ 2320'.Both	n drilled out & hole	cleaned to origina	ITD @ 4705'.
Formations Encountered: Surface: See Attached WR-35 & "		Top Deptil al completion of	/ this well (47-03	Bottom 1 33-04927).	<u>Depth</u>
			- R	CEIVED	
			Office	of Oll & Gas	•
			NU	V 1 5 2012	
			WV D	epartment of nental Protec	tion

Jf

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 11/15/2012 API #: 47-033-05243-DD

Farm name: Johnson Family Trust		Operator Well No.: Morgan Unit 1H				
LOCATION: Elevation: 1121' Quadrangle: Salem						
District: Tennile	C	ounty: Harris	on .			
Latitude: 2149 Feet South of 39	Deg. 22	Min.		•		
Longitude 17283 Feet West of 80	Deg. 32	Min.				
Company: Antero Resources Appalachian Con						
Address: 1625 17th Street		lasing & lubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Denver, CO 80202		20" 94#	40'	40'	38 Cu. Ft. Class A	
Agent: CT Corporation System	1	3-3/8" 55#	394'	394'	647 Cu. Pt. Class A	
Inspector: Tristan Jenkins	9	5/8" 36#	2,360'	2,360'	961 Cu. Ft. Class A	
Date Permit Issued: 6/12/2009, 2/21/2012 (Orill D	Deeper) (5 1/2" 20#	11,779	11,779'	2883 Cu. Fl. Class A	
Date Well Work Commenced: 6/30/2010						
Date Well Work Completed: 5/2/2012	2	3/8" 4.7#	7,642'			
Verbal Plugging: N/A						
Date Permission granted on: N/A						
Rotary Cable Rig				RECEIV	213	
Total Vertical Depth (ft): 7,413'			<u></u>	ice of Oil		
Total Measured Depth (ft): 11,779' MD, 7,34	46' TVD (BHL)		ICO OF CH		
Fresh Water Depth (ft.): 40°				NOV 20	112	
Salt Water Depth (ft.): est.1915'						
Is coal being mined in area (N/Y)? No			W	/ Departn	ent of	
Coal Depths (ft.): 949'			Enviro	Mental	Protection	
Void(s) encountered (N/Y) Depth(s) N, N/A					·	
	41			<u> </u>	l 0	
OPEN FLOW DATA (If more than two producing formation Marcellus			ie accitional da 7,392' TVD (To		neet)	
Gas: Initial open flow MCF/d Oil: Initial of			<u>,552 11</u> 5 (16	P1		
Final open flow 6034 MCF/d Final open	-					
Time of open flow between initial and final tes	_	Hours				
Static rock Pressure 3800 psig (surface pressu			rs			
Second producing formation	ov zane i	depth (ft)				
Gas: Initial open flow MCF/d Oil: Initial			ol/d			
Final open flowMCF/d Final open	_	Bb				
Time of open flow between initial and final tes	_	Hours				
Static rock Pressure psig (surface pressu		Hour				

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date

Were core samples taken? Yes	No_X Were	cuttings caught during drilling? Yes	No_X
Were Electrical, Mechanical or Geophys This is a subsequent well. Antero only runs wireline logs on the	ical logs recorded on this well? I	fyes, please list Yes, CBL	WD 65 to Cover the Co
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO COAL ENCOUNTERED BY THE W	PUT THE FOLLOWING: , PHYSICAL CHANGE, ETC. PRD OF THE TOPS AND BO	1). DETAILS OF PERFORATE 2). THE WELL LOG WHICH IS DITTOMS OF ALL FORMATIO	ED INTERVALS, A SYSTEMATIC
Perforated Intervals, Fracturing, or Stime	ulating:		
Perforations: 7,793' - 11,713' (86			
Frac'd w/ 6,500 gals 15% HCL A	cid, 109,557 bbls Slick Wa	ter carrying 522,238# 100 me	sh,
2,439,780# 40/70 and 1,657,020	# 20/40 sand.		
Plug Back Details Including Plug Type a	ing Debru(s): N/A		
Formations Encountered: Surface:	Top Depth	/ Bot	tom Depth
Big Lime	2,153'	2,192'	
Big Injun	2,193'	2,617'	
Gantz Sand	2,618'	2,745'	· ·
Fifty Foot Sand	2,746'	2,846'	
Gordon	2,847'	3,187'	
Fifth Sandstone	3,188'	3,962'	
Speechley	3,963'	4,274'	
Balltown	4,275'	4,610'	
Bradford	4,611'	5,145'	
Benson	5,146'	5,424'	
Alexander	5,425'	5 ,631'	
Elk	5,632'	6,259'	
Rhinestreet	6,260'	6,813'	
Sycamore SS	6,814'	7,067'	
Sonyea	7,068'	7,228'	
Burket	7,229'	7,251'	ě
Tully	7,252'	7,341'	
Hamilton	7,342'	7,391'	
Marcellus	7,392'	7,413' TVD	

Second producing formation_

Gas: Initial open flow_____

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/12/12))	
API#:	47-033-05450		

Farm name: I.L. Morris & Mike Ross, Inc.	Operator Well	No.: Reynolds	Jnit 2H	·
LOCATION: Elevation: 1169'	Quadrangle: Wolf Summit			
District: Coal Latitude: 3803' Feet South of 39 Deg. Longitude 10,926' Feet West of 80 Deg.	County: Harris Min. Min.	00 Sec		
Company: Antero Resources Appalachian Corp.				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13-3/8" 55#	496'	496'	689 Cu. Ft. Class A
Inspector: Tristan Jenkins	9-5/8" 36#	2529'	2529'	1030 Cu. Ft. Class A
Date Permit Issued: 7/22/2010	5-1/2" 20#	14,096'	14,096'	3470 Cu. Ft. Class H
Date Well Work Commenced: 12/22/2010				
Date Well Work Completed: 5/09/2011	2-3/8" 4.7#	7131'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				-
Total Vertical Depth (ft): 7063' TVD (deepest point drilled)				
Total Measured Depth (ft): 14,109' MD, 6892' TVD (BHL)				
Fresh Water Depth (ft.): N/A				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A			ļ	
Void(s) encountered (N/Y) Depth(s) N, N/A				
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay 2 Gas: Initial open flow MCF/d Oil: Initial open flow 10,716 MCF/d Final open flow	zone depth (ft)_ lowBl vBb	7025' TVD (bl/d l/d	ata on separate (Op)	sheet)
Time of open flow between initial and final tests	Hours			· 2
Static rock Pressure 3800 psig (surface pressure) at Second producing formation Pay zo	ne depth (ft)			OFFICE 2012 NOV

I certify under penalty of law that I have personally examined and am familiar with the information submitted on the location and all the attachments and that based on my inquiry of these individuals. all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

_MCF/d Oil: Initial open flow_____

Final open flow MCF/d Final open flow _____

Static rock Pressure _____psig (surface pressure) after _____Hours

Time of open flow between initial and final tests____

Bbl/d

Were core samples taken? Yes	No_X Were cuttings c	aught during drilling? YesNo_X
Were Electrical Mechanical or Geophysi	cal logs recorded on this well? If yes, plea	ise list Yes, CBL.
This is a subsequent well. Antero only runs wireline logs on the first	st well on a multi-pad (Reynolds Unit 1H APi# 47-033-05450). Please	reference wireline logs submitted with Form WR-35 for Reynolds Unit 1H.
FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECO	PHYSICAL CHANGE, ETC. 2). THE	AILS OF PERFORATED INTERVALS, WELL LOG WHICH IS A SYSTEMATIC S OF ALL FORMATIONS, INCLUDING AL DEPTH.
Perforated Intervals, Fracturing, or Stimu	lating:	
Perforations: 7163' – 14,030' MD	·	
Frac'd w/ 5,000 gals 15% HCL A	cid, 116,151 bbls Slick Water carry	ying 537,000# 100 mesh,
2,500,800# 40/70 and 1,583,600#	20/40 sand.	
		-
Plug Back Details Including Plug Type a	nd Depth(s):	
Formations Encountered: Surface:	Top Depth /	Bottom Depth
Big Lime	1,448'	1,529'
Big Injun	1,530'	1,907'
Gantz Sand	1,908'	2,018'
Fifty Foot Sand	2,019'	2,160'
Gordon	2,161'	2,431'
Fifth Sandstone	2,432'	3,122'
Speechley	3,123'	, 3,335 ^t
Balltown	3,336'	3,850'
Bradford	3,851'	4,461'
	4,462'	4,806'
Benson	4,807'	5,037'
Alexander	5,038'	5,644'
Elk Bhire adverse		6,355'
Rhinestreet	5,645'	6,632'
Sycamore	6,355'	6,823'
Sycamore Shale	6,633'	6,948'
Tully	6,824'	0,348

6,949' 7,025'

Hamilton

Marcellus

7,024' 7,063' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

API #:	47-033-05472	
DATE:	11/13/2012	Ŋ.

	Office of Oil and Gas
Well O	perator's Report of Well Work
	•
	Operator Well No.: Alfred Unit 1H
	Operator well No.:

Farm name: I.L. Morris & Mike Ross, Inc.	Operator Well	No.: Alfred Unit 1	Н		
LOCATION: Elevation: 1142' Quadrangle: Wolf Summit					
District: Coal County: Harrison					
Latitude: 4794' Feet South of 39 Deg. 2	20Min.	00Sec.			
Longitude 11,250 Feet West of 80 Deg. 2	25Min.	oo Sec.			
Company: Antero Resources Appalachian Corp.					
Company.	Casing &	Used in	Left in well	Cement fill	
Address: 1625 17th Street	Tubing	drilling		up Cu. Ft.	
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A	
Agent: CT Corporation System	13-3/8" 55#	484'	484'	672 Cu. Ft. Class A	
Inspector: Tristan Jenkins	9-5/8" 36#	2468'	2468'	1005 Cu. Ft. Class A	
Date Permit Issued: 9/01/2010	5-1/2" 20#	15,491'	15,491'	3883 Cu. Ft. Class H	
Date Well Work Commenced: 3/20/2011					
Date Well Work Completed: 7/15/2011	2-3/8" 4.7#	7217'			
Verbal Plugging: N/A					
Date Permission granted on: N/A					
Rotary Cable Rig				ļ	
Total Vertical Depth (ft): 7063' TVD (deepest point drilled)				<u> </u>	
Total Measured Depth (ft): 15,527' MD, 7063' TVD (BHL)					
Fresh Water Depth (ft.): 40'					
Salt Water Depth (ft.): 945', 1695', 1710', 1845'					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): Deepest known coal seam mine	d at surface	<u> </u>			
Void(s) encountered (N/Y) Depth(s) N, N/A					
OPEN FLOW DATA (If more than two producing formati	one places inclu	ide additional d	ata on separate :	sheet)	
OPEN FLOW DATA (If more than two producing formation Producing formation Pay	zone depth (ft)	7038' TVD (To	p)	,	
Gas: Initial open flowMCF/d Oil: Initial open flow	Now_N/A_B	bl/d			
Final open flow 15,983 MCF/d Final open flow	M WA B	bl/d			
Time of open flow between initial and final tests N/. Static rock Pressure 3300 psig (surface pressure) a	AHour fter Hou				
Second producing formation Pay 20	one depth (ft)	<u> </u>			
Gas: Initial open flow MCF/d Oil: Initial open Final open flow MCF/d Final open flo		BbI/d bI/d			
Final open flow MCF/d Final open flo Time of open flow between initial and final tests				O 2	
Static rock Pressure psig (surface pressure) a	ıfterHo			FFI IRO	
to the flow that I have personally evamined	l and am familia	ar with the info	rmation submitte	ed This Eument 3	ınd
I certify under penalty of law that I have personally examined and am familiar with the information submitted information personally examined and am familiar with the information submitted information personal that the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information personal transfer in the information submitted in the inf					
that the information is true, accurate, and complete.	•		, a	<u>'</u>	Š
StramaRe	dica		11/15/12		ż
Signature			Date	& GAS	
_				S	

Were core samples taken? Yes_	No_X Were	cuttings caught during drilling? Yes	No_X
Were Electrical, Mechanical or Ge Photo Density/Compensated Neutron/Gamma	eophysical logs recorded on this well? Ray and Dual Laterlog/Gamma Ray	If yes, please list_Yes, CBL, Gamma	Ray/CCL Log,
FRACTURING OR STIMULA DETAILED GEOLOGICAL	TING, PHYSICAL CHANGE, ETC.	1). DETAILS OF PERFORATED . 2). THE WELL LOG WHICH IS A OTTOMS OF ALL FORMATIONS . TO TOTAL DEPTH.	SYSTEMATIC
Perforated Intervals, Fracturing, or	r Stimulating:		
Perforations: 7504' - 15,433			
		ater carrying 604,100# 100 mest	1,
2,820,300# 40/70 and 1,769	9,800# 20/40 sand.		
•			
Plug Back Details Including Plug	Type and Denth(s):		
	Type and Depin(3).		
Formations Encountered: Surface:	Top Depth	/ Botton	m Depth
Big Lime	1,461'	1530'	
Big Injun	1,531'	1918'	
Gantz Sand	1,919'	2024'	
Fifty Foot Sand	2,025'	2179'	
Gordon	2,180'	2440'	
Fifth Sandstone	2,441'	3134'	
Speechley	3,135'	3350'	
Balltown	3,351'	3854'	
Bradford	3,855'	4472'	
Benson	4,473'	4771'	
Alexander	4,772'	4972'	
Elk	4,973'	5720'	
Rhinestreet	5,721'	6353'	
	6,354'	6627'	
Sycamore SS	6,628'	6809'	
Sonyea	6,810'	6829'	
Burket	0,010	0023	

6,830'

6,960'

7,016'

7,038'

Tully

Hamilton

Marcellus

Cherry Valley

6959'

7015'

7037'

7,063' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/13/2012	Ú.
API #:	47-033-05473	

Farm name: I.L. Morris & Mike Ross, Inc.	Operator Well	No.: Alfred Unit	2H	
LOCATION: Elevation: 1142'	Elevation: 1142' Quadrangle: Wolf Summit			
District: Coal	County: Harris	on		
Latitude: 4810' Feet South of 39 Deg.	20 Min.		•	
Longitude 11,238' Feet West of 80 Deg.		00 Sec	•	
Company: Antero Resources Appalachian Corp.				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13-3/8" 55#	496'	496'	689 Cu. Ft. Class A
Inspector: Tristan Jenkins	9-5/8" 36#	2404'	2404'	979 Cu. Ft. Class A
Date Permit Issued: 9/01/2010	5-1/2" 20#	15,362'	15,362'	3855 Cu. Ft. Class H
Date Well Work Commenced: 3/20/2011				
Date Well Work Completed: 7/09/2011	2-3/8" 4.7#	7139'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 7053' TVD (deepest point drilled)				
Total Measured Depth (ft): 15,362' MD, 7053' TVD (BHL)				
Fresh Water Depth (ft.): 40'				
Salt Water Depth (ft.): 945'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):Deepest known coal seam mined	at surface			
Void(s) encountered (N/Y) Depth(s) N, N/A				
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay 2 Gas: Initial open flow —— MCF/d Oil: Initial open flow Time of open flow between initial and final tests N/A Static rock Pressure 3300 psig (surface pressure) af	zone depth (ft) / N/A Bb N/A Bb Hours	7 <u>027' TV</u> D (Top bi/d I/d	ata on separate s p)	heet)
• • • • • • • • • • • • • • • • • • • •	ne depth (ft)		_	
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow		bl/d .1/d		0 2 2
Final open flowMCF/d Final open flow Time of open flow between initial and final tests			į	
Static rock Pressurepsig (surface pressure) af				RE OFFICE 2012 NOV WV DEF
I certify under penalty of law that I have personally examined all the attachments and that, based on my inquiry of those individual that the information is true, accurate, and complete.	and am familiar	with the informately responsible	nation submitte	on this ocument and
Signature			Date	E S

Were core samples taken? Yes	_No_X Were	cuttings caught during drilling? Yes_	No_X
Were Electrical, Mechanical or Geophy This is a subsequent well. Antero only runs wireline logs on	vsical logs recorded on this well? I	f yes, please list CBL	MFD 7E for Afford Link 444
NOTE: IN THE AREA BELOV FRACTURING OR STIMULATIN DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	V PUT THE FOLLOWING: G, PHYSICAL CHANGE, ETC. ORD OF THE TOPS AND BO	1). DETAILS OF PERFORATEI 2). THE WELL LOG WHICH IS A DTTOMS OF ALL FORMATION	D INTERVALS A SYSTEMATIO
Perforated Intervals, Fracturing, or Stir	nulating:		
Perforations: 7687' - 15,294' M	D (1368 holes)		
Frac'd w/ 6,000 gals 15% HCL	Acid, 140,905 bbls Slick Wa	iter carrying 646,400# 100 mes	sh,
2,844,000# 40/70 and 1,875,70	0# 20/40 sand.		
Plug Back Details Including Plug Type	and Depth(s):		
Formations Encountered: Surface:	Top Depth	/ Botto	om Depth
Big Lime	1,449'	1,530'	
Big Injun	1,531'	1,896'	_
Gantz Sand	1,897'	1,996'	
Fifty Foot Sand	1997'	2,154'	
Gordon	2,155'	2,414'	
Fifth Sandstone	2,415'	3,105'	
Speechley	3,106'	3,325'	
Bailtown	3,326'	3,829'	
Bradford	3,830'	4,442'	
Benson	4,443'	4,737'	
Alexander	4,738'	4,959'	
Elk	4,960'	5,720'	
Rhinestreet	5,721'	6,330'	
Sycamore SS	6,331'	6,628'	
Sonyea	6,629'	6,808'	
Burket	6,809'	6,826'	
Tully	6,827'	6,951'	
Hamilton	6,952'	7,026'	
Marcellus	7,027'	7,053' TVD	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/8/2012	
API #:	47-033-05475	

Farm name: Rossco Limited Liability	СС		Operato	or Well No.: S	trother Unit 1H	
LOCATION: Elevation: 1179			Quadrai	ngle: Wolf Sun	nmit	
District: Sardis			County	Harrison		
Latitude: 11,142	Feet South of 39	Deg.	-	Min. 00	Sec.	
I ongitude 6.596	Feet West of 80	Deg		Min 30	Sec.	

Antero Resources Appalachian Corp Company: Cement fill Used in Left in well Casing & 1625 17th Street up Cu. Ft. **Tubing** drilling Address: 40' 38 Cu. Ft. Class A 20" 94# 40' Denver, CO 80202 13-3/8" 54.5# 498' 498' 690 Cu. Ft. Class A CT Corporation System Agent: 2424' 2424' 1567 Cu. Ft. Class A Inspector: Tristan Jenkins 9-5/8" 36# 5-1/2" 20# 13820' 13820' 3425 Cu. Ft. Class H Date Permit Issued: 9/9/2010 Date Well Work Commenced: 9/12/2011 1/30/2012 2-3/8" 4.7# 7192' Date Well Work Completed: N/A Verbal Plugging: N/A Date Permission granted on: Rotary 🗸 Cable Rig Total Vertical Depth (ft): 7077' TVD (deepest point drilled) 13820' MD, 7146' TVD (BHL) Total Measured Depth (ft): Fresh Water Depth (ft.): 40' 1433' Salt Water Depth (ft.): No Is coal being mined in area (N/Y)? Coal Depths (ft.): Deepest known coal seam mined at surafce Void(s) encountered (N/Y) Depth(s)

Producing formation Marcelle	Pay zone de	ase include additional data on separate shee ppth (ft) 7006' TVD (Top)		
Gas: Initial open flow	MCF/d Oil: Initial open flow N/A	Bbl/d		
Final open flow 8901	MCF/d Final open flow N/A	Bbl/d		
Time of open flow between	en initial and final tests N/A	Hours		
Static rock Pressure 3300	psig (surface pressure) after	Hours	2	유
Second producing formation	Pay zone dept	h (ft)	012 N	FFIC
	MCF/d Oil: Initial open flow		NON	62
	MCF/d Final open flow			묶유
Time of open flow betwe	en initial and final tests	Hours	S	22
Static rock Pressure	psig (surface pressure) after	Hours	U	% □

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information is true, accurate, and complete.

Signature

11/13/12

Were core samples taken? Yes	No.X Were	cuttings caught during drilling? Yes X No
Were Electrical, Mechanical or Geophysi and Photo Density/Compensated Neutron/Gamma Ray.	cal logs recorded on this well? If	f yes, please list Yes - CBL, Dual Laterolog/Gamma Ray,
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING,	PHYSICAL CHANGE, ETC. RD OF THE TOPS AND BO	1). DETAILS OF PERFORATED INTERVALS 2). THE WELL LOG WHICH IS A SYSTEMATIO OTTOMS OF ALL FORMATIONS, INCLUDING TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimu	lating:	
Perforations: 7200' - 13753' MD (1308 holes)	
Frac'd w/ 9,500 gals 15% HCL Ac	id, 153,998 bbls Slick Wat	er carrying 767,900# 100 mesh,
3,454,800# 40/70 and 2,198,800#	20/40 sand.	
Plug Back Details Including Plug Type a	nd Depth(s): N/A	
Formations Encountered:	Top Depth	/ Bottom Depth
Surface:		
Big Lime	1,411'	1,495'
Big Injun	1,496'	1,901'
Gantz	1,902'	1,981'
Fifty Foot Sand	1,982'	2,182'
Gordon	2,183'	2,429'
Fifth Sandstone	2,430'	2,466'
Bayard	2,467'	3,120'
Speechley	3,121'	3,357'
Bailtown	3,358'	3,935'
Bradford	3,935'	4,563'
	4,564'	4,882'
Benson	4,883'	5,092'
Alexander	5,093'	5,763'
Elk		6,346'
Rhinestreet	5,764'	6,619'
Sycamore	6,347'	
Sycamore Shale	6,620'	6,771 ¹
Burkett	6,772'	6,792'
Tully	6,793'	6,924'
Hamilton	6,925'	7,005'
Marcellus	7,006'	7,017'
Purcell	7,018'	7,044'
Cherry Valley	7,045'	7,071'
Onondoga	7,072'	7077' TVD

Onondoga

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/15/2012	1
API #:	47-033-05518	0

Farm name: Posey, Larry L. & Marth	a V.	Op	erator Well No.: R	R Unit 1H	
LOCATION: Elevation: 1107'	Quadrangle: Clarksburg				
District: Coal		Co	unty: Harrison		
Latitude: 11,855	Feet South of 39	Deg. 20	Min. 00	Sec.	•
Longitude 10,394	Feet West of 80	Deg. 20	Min. 00	Sec.	

Antero Resources Appalachian Corp Company: Cement fill Casing & Used in Left in well 1625 17th Street Address: Tubing drilling up Cu. Ft. 38 Cu. Ft. Class A 20" 65.6# 40' 40' Denver, CO 80202 522' 522' 740 Cu. Ft. Class A **CT Corporation System** 13-3/8" 68# Agent: Inspector: Tristan Jenkins 2464' 2464' 1009 Cu. Ft. Class A 9-5/8" 36# 5-1/2" 20# 16,294' 16,294' 4107 Cu. Ft. Class H Date Permit Issued: 10/20/2011 10/21/2011 Date Well Work Commenced: 03/25/2012 2-3/8" 4.7# 7050' Date Well Work Completed: N/A Verbal Plugging: N/A Date Permission granted on: Rotary 🗸 Cable Rig Total Vertical Depth (ft): 7,097' TVD Total Measured Depth (ft): 16,295' MD, 6,952' TVD (BHL) Fresh Water Depth (ft.): 50', 120' Salt Water Depth (ft.): 2405' Is coal being mined in area (N/Y)? N Coal Depths (ft.): Pad built on deepest coal seam.

Void(s) encountered (N/Y) De	pth(s) N, N/A					
OPEN FLOW DATA (If more than t	wo producing formatio	ns please includ	le additional data	on separate she	et)	
Producing formation Marcellus	Pay 2	zone depth (ft)7	,062' TVD (Top)			
Gas: Initial open flow MC						
Final open flow 9,460 MC	F/d Final open flow	N/A Bbl	I/d			
Time of open flow between ini						
Static rock Pressure 3300 psi	g (surface pressure) af	terHour	'S			
Second producing formation				ENVIRONH	2012 NOV	REC OFFICE C
Gas: Initial open flowMC	F/d Oil: Initial open fl	owBb	ol/d	윘	2	ਨਂ_
Final open flowMC				声 问	2	
Time of open flow between in	tial and final tests	Hours		1		육유
Static rock Pressureps	g (surface pressure) af	terHour	rs		د.	≥≥
certify under penalty of law that I have	personally examined a	and am familiar	with the informat	ion submitted of obtaining the	on this do informa	ocument an aties I beli
hat the information is true, accurate, an				NOIL	<u>-</u>	S
	10 C	e ·	1		•	

Juda Blandure

Were core samples taken? Yes	No X Were	e cuttings caught during drilling? Yes	No_X
		If yes, please list Yes- CBL	
Were Electrical, Mechanical or Geophysi This is a subsequent well. Antero only runs wireline logs on the	cal logs recorded on this well? first well on a multi-pad (Colly Unit 1H API# 47-03	11 yes, prease fist 33-05538). Please reference wireline logs submitted with Form W	VR-35 for Colly Unit 1H.
FRACTURING OR STIMULATING	, PHYSICAL CHANGE, ETC RD OF THE TOPS AND B	1). DETAILS OF PERFORATED C. 2). THE WELL LOG WHICH IS A SOUTTOMS OF ALL FORMATIONS E TO TOTAL DEPTH.	SYSTEMATIC
Perforated Intervals, Fracturing, or Stimu	lating:		
Perforations: 7875' - 16,226' MD	<u> </u>		
Frac'd w/ 11,500 gals 15% HCL A		ater carrying 807,600# 100 mesh	ł,
3,627,800# 40/70 and 2,220,200#	# 20/40 sand.		
	18 4()		
Plug Back Details Including Plug Type a	nd Depth(s): N/A		
Formations Encountered: Surface:	Top Depth	/ Botton	n Depth
Big Lime	1,385'	1,501'	•
Big Injun	1,502'	1,873'	
Gantz Sand	1,874'	1,958'	
Fifty Foot Sandstone	1,959'	2,151'	
Gordon	2,152'	2,393'	
Fifth Sandstone	2,394'	2,453'	
Bayard	2,454'	3,080'	*
Speechley	3,081'	3,299'	
Balltown	3,300'	3,766'	
Bradford	3,767'	4,434'	
Benson	4,4351	4,721'	
Alexander	4,722'	4,952'	
	4,953'	6,222'	
Elk	6,223'	₩ 560'	•
Sycamore	6,561'	±3.717 €.717	. 🗃 🗂
Middlesex	-	27c1	N. 7.
Genundewa	6,718'	16,787 16,787	
Burket	6,752'	16 /93	
Tully	6,788'		
Hamilton	6,938'	፟፟አ፬61 ፠፟፟፟፟፟፟፟፟፟፟ጟ፟፟	
Marcellus	7,062'	到077	, K
Onondaga	7,078'	74997 1108 1108	GAS

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/8/2012	
API #:	47-033-05544	

Farm name: Phillips, Donald L. & Mary V.	Operator Wel	No.: Warren U	nit 1 H	
LOCATION: Elevation: 1058	Quadrangle:	Clarksburg		
District: Eagle	County: Harris	son		
Latitude: 10,875' Feet South of 39	Deg. <u>20</u> Min	. <u>00</u> Se		
Longitude 2.825 Feet West of 80	Deg. <u>20</u> Min	. <u>00</u> Se	c.	
Company: Antero Resources Appalachian	Corp.			
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13-3/8" 48#	503'	503'	699 Cu. Ft. Class A
Inspector: Tristan Jenkins	9-5/8" 36#	2447'	2447'	996 Cu. Ft. Class A
Date Permit Issued: 5/17/2011	5-1/2" 20#	14,566'	14,566'	3623 Cu. Ft. Class H
Date Well Work Commenced: 10/14/2011				
Date Well Work Completed: 8/1/2012	2-3/8" 4.6#	7086'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 7228' TVD (deepest	point drilled)			
Total Measured Depth (ft): 14,566' MD, 7200	' TVD (BHL)			
Fresh Water Depth (ft.): 40'				
Salt Water Depth (ft.): 1310'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Deepest known coal se	eam eroded at surface	1		
Void(s) encountered (N/Y) Depth(s) N, N	/A			
		ا ا ا ا الا	lata an asmanata	nhaat)
OPEN FLOW DATA (If more than two producin Producing formation Marcellus	ig formations please inclu Pay zone denth (ft)	6925' TVD (To	iata on separate : op)	Silect)
Gas: Initial open flow MCF/d Oil: Init	tial open flow N/A B	bl/d		
		ol/d		2 0
Time of open flow between initial and fina				DFF 2012
Static rock Pressure 3300 psig (surface p	ressure) afterHou	rs		NOV ICE
Second producing formation	Pay zone depth (ft)			OF 1
<u> </u>		bl/d		2
Final open flowMCF/d Final	l open flowBl	ol/d		של ה
Time of open flow between initial and fina				16 31
Static rock Pressurepsig (surface p	ressure) afterHou	rs		w &

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

11/13/12 Date

Were core samples taken? Yes	No X Wer	e cuttings caught during drilling? YesNoX
Were Electrical, Mechanical or Geophy		If yes please list Yes, CBL.
This is a subsequent well. Antero only runs wireline logs on the	e first well on a multi-pad (Wheaton Unit 2H AP# 47-0	33-05546). Please reference wireline logs submitted with Form WR-35 for Wheaton Unit 2
		A DETENTION OF PERSON ATEN INTERVAL
FRACTURING OR STIMULATIN	G, PHYSICAL CHANGE, ETO ORD OF THE TOPS AND I	1). DETAILS OF PERFORATED INTERVAI C. 2). THE WELL LOG WHICH IS A SYSTEMAT BOTTOMS OF ALL FORMATIONS, INCLUDIN E TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stir	nulating:	
Perforations: 7117' - 14,500' M	D (1200 holes)	
Frac'd w/ 8,500 gals 15% HCL	Acid, 118,015 bbls Slick W	ater carrying 636,220# 100 mesh,
2,426,049# 40/70 and 1,504,12	0# 20/40 sand.	
Plug Back Details Including Plug Type	and Denth(s):	
Flug Back Details including Flug Type	and Deput(s).	
Formations Encountered:	Top Depth	/ Bottom Depth
Surface:		
ilt/Sand/Shale	0'	3,041'
peechley	3,042'	3,254'
Balltown	3,255'	3,732'
Bradford	3,733'	4,443'
Benson	4,444'	4,706'
lexander	4,707'	4,939'
ik	4,940'	5,555'
khinestreet	5,556'	6,202'
ycamore		6,665'
•	6,203'	-,
Burkett	6,203' 6,666'	6,697'
	6,666'	•
Γully	6,666' 6,698'	6,697'
Burkett Fully Hamilton Marcellus	6,666'	6,697' 6,826'

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/8/2012	V
API #:	47-033-05545	

TION: Elevation: 1058		Quadrangle: C	larksburg		
District: Eagle		County: Harris	on		
Latitude: 10,866'	Feet South of 39 D	eg. 20 Min.		c.	
Longitude 2,821'	Feet West of 80 I	Deg. 20 Min.	00 Sec	С.	
Company: Antero Resor	urces Appalachian Corp.				
Address: 1625 17th S	treet	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO	80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation	n System	13-3/8" 48#	504'	504'	700 Cu. Ft. Class A
Inspector: Tristan Je	enkins	9-5/8" 36#	2425'	2425'	987 Cu. Ft. Class A
Date Permit Issued: 5/	8/2011	5-1/2" 20#	14,106'	14,106'	3503 Cu. Ft. Class I
Date Well Work Comme	nced: 10/15/2011				
Date Well Work Comple	eted: 8/7/2012	2-3/8" 4.6#	7170'		
Verbal Plugging:	N/A				
Date Permission granted	on: N/A				
Rotary Cable	Rig _				
Total Vertical Depth (t): 7237' TVD (deepest point dr	rilled)			
	(ft): 14,106' MD, 7224' TVD (I	BHL)			
Fresh Water Depth (ft.)					
Salt Water Depth (ft.):					
Is coal being mined in a					
Coal Depths (ft.): Deep	est known coal seam e	roded at surface			
Void(s) encountered (N/					
PEN FLOW DATA (If more Producing formation Marc Gas: Initial open flow Final open flow 6.407	e than two producing form	Pay zone depth (ft) (ft) (ft) (ft) (ft) (ft) (ft) (ft)	6959' TVD (T6 	lata on separate op)	0FF 2012
Second producing formatic Gas: Initial open flow Final open flow Time of open flow betw	onPa MCF/d Oil: Initial op	y zone depth (ft)_en flowBt	bl/d bl/d		NOV 15 P

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurage, and complete.

Were core samples taken? Yes	No X Were	cuttings caught	during drilling? Yes_	(No
Were Electrical, Mechanical or Geophy This is a subsequent well. Antero only runs whreline logs on the	ysical logs recorded on this well?	If yes, please lis	t Yes, CBL.	R-35 for Wheaton Unit 2H.
NOTE: IN THE AREA BELOV FRACTURING OR STIMULATIN DETAILED GEOLOGICAL REC COAL ENCOUNTERED BY THE	V PUT THE FOLLOWING: G, PHYSICAL CHANGE, ETC ORD OF THE TOPS AND B	1). DETAILS . 2). THE WEI OTTOMS OF	OF PERFORATED LL LOG WHICH IS A ALL FORMATIONS	INTERVALS, SYSTEMATIC
Perforated Intervals, Fracturing, or Stir	mulating:			
Perforations: 7191' - 14,041' M	D (1344 holes)			
Frac'd w/ 10,000 gals 15% HC	L Acid, 142,539 bbls Slick V	later carrying	765,160# 100 me	sh,
2,890,137# 40/70 and 1,694,82	6# 20/40 sand.			
		-		
Plug Back Details Including Plug Type	e and Depth(s):			
1109 2000 20000 10000 1000 1000				
D D	Top Depth	,	Botto	m Depth
Formations Encountered: Surface:	Top Deptil		Dotto	ш Берш
Silt/Sand/Shale	0'		3,690'	
Bradford	3,691'		4,382'	
Benson	4,383'		4,693'	
Alexander	4,694'		4,935'	
Elk	4,936'		5,563'	
Rhinestreet	5,564'		6,212'	
Sycamore	6,213'		6,679'	
Burkett	6,680'		6,715'	
Tully	6,716'		6,852'	
Hamilton	6,853'		6,958'	
Marcellus	6,959'		7,237' TVD	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

API #:	47-033-05546	
DATE:	11/15/2012	Ţ,

Farm name: Phillips, Donald	L. & Mary V.	Opera	utor Well No.: <u>W</u>	Vheaton Unit 2H	
LOCATION: Elevation:	1058'	Quadı	rangle: Clarksbu	rg	
District: Eagle		Count	ty: Harrison		
Latitude: 10,857	Feet South of 39	Deg. 20	Min. 00	Sec.	
Longitude 2817	Feet West of 80	Deg. 20	Min. 00	Sec.	

Antero Resources Appalachian Corp Cement fill Casing & Used in Left in well 1625 17th Street **Tubing** drilling up Cu. Ft. Address: 20" 94# 40' 40' 38 Cu. Ft Class A Denver, CO 80202 CT Corporation System 480' 667 Cu. Ft. Class A 13-3/8" 54.5# 480' Inspector: Tristan Jenkins 9-5/8" 36# 2424' 2424' 996 Cu. Ft. Class A 5-1/2" 20# 15,163' 3794 Cu. Ft. Class H 15,163' Date Permit Issued: 5/17/2011 Date Well Work Commenced: 10/14/2011 4/4/2012 6923' 2-3/8" 4.7# Date Well Work Completed: N/A Verbal Plugging: N/A Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 7,219' TVD Total Measured Depth (ft): 15,163' MD, 7,209' TVD (BHL) Fresh Water Depth (ft.): 20', 40' Salt Water Depth (ft.): Is coal being mined in area (N/Y)? No Coal Depths (ft.): The deepest coal layer is above the pad. Void(s) encountered (N/Y) Depth(s) No, N/A

Producing formation Marcel			oth (ft) 6,905'				
Gas: Initial open flow							
Final open flow 8,039							
Time of open flow between	en initial a	nd final tests N/A	_Hours				
Static rock Pressure 3300	psig (su	rface pressure) after	Hours				
					ENVI	~	9
Second producing formation					¥	8	F
Gas: Initial open flow	MCF/d	Oil: Initial open flow	Bbl/d		RON	7012 NOV	OFFICE (
Final open flow	MCF/d	Final open flow	Bbl/d		孟恩	2	
Time of open flow between	en initial a	nd final tests	_Hours		五三		육유
Static rock Pressure	psig (su	ırface pressure) after	Hours		P	0۔	≥≥
					PR T	U	
ertify under penalty of law that	I have pers	sonally examined and am	familiar with t	he information sub	omitted o	n this c	iociment an
the attachments and that, based	on my inq	uiry of those individuals	immediately re	sponsible for obta	inin g Jh é	inforn	nation I belie
at the information is true, accura					=	<u> </u>	လ

Were core samples taken?	Yes X No	_ Were cuttings caug	ht during drilling? Yes X No
Were Electrical, Mechanic	cal or Geophysical logs re	ecorded on this well? If yes, please l	ist_Yes - CBL, Dual Laterolog/Gamma Ray &
Photo Density/Compensated Neutro	on/Gamma Ray.	· · · · · · · · · · · · · · · · · · ·	
FRACTURING OR STI DETAILED GEOLOG	IMULATING, PHYSIC ICAL RECORD OF '	CAL CHANGE, ETC. 2). THE WE	S OF PERFORATED INTERVALS ELL LOG WHICH IS A SYSTEMATION F ALL FORMATIONS, INCLUDING DEPTH.
Perforated Intervals, Fract	uring, or Stimulating:		
Perforations: 7227'-15	5,097' MD (1656 hol	es)	
Frac'd w/ 12,000 gals	15% HCL Acid, 169	9,878 bbls Slick Water carryin	g 794,880# 100 mesh,
3,553,834 # 40/70 and	d 2,419,418# 20/40	sand.	
		<u> </u>	
Plug Back Details Including	ng Plug Type and Depth	(s): Ν/Δ	
		· / IV/A	
Formations Encountered:		Top Depth /	Bottom Depth
Surface:			
Big Lime	1,366'	1,469'	
Big Injun	1,470'	1,856'	
Gantz Sand	1,857'	1,940'	
Fifty Foot Ss	1,941'	2,113'	
Gordon	2,114'	2,386'	
Fifth Ss	2,387'	2,787	
Warren Transgressive	2,788'	3,071'	
Speechly	3,072'	3,272'	
Balltown	3,273'	3,742'	
Bradford	3,743'	4,413'	
Benson	4,414'	4,707'	
Alexander	4,708'	4,919'	
Elk	4,920'	5,450'	
Rhinestreet	5,451'	6,219'	
Sycamore Ss	6,220'	6,487'	
Sonyea	6,488'	6,648'	
Burket	6,649'	6,684'	
Tully	6,685'	6,812'	
Hamilton	6,813'	6,904'	
Marcellus	6,905'	6,916'	
Purcell	6,903 6,917'	6,940'	
	6,941'	7,215'	
Cherry Valley	7,216'	7,213 7,219' TVD	
Onondaga	1,410	1,217 1 VD	



State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/8/2012
API#:	47-033-05549 · D

District: Coal	Deg. 20 Min. 30 Sec. Deg. 22 Min. 30 Sec. Deg. 23 Min.	TION: Elevation: 1191'	Quadrangle: <u>W</u>	/olf Summit		
Latitude: 8728' Feet South of 39 Deg. Longitude 9173' Feet West of 80 Deg. 22 Min. 30 Sec. Company: Antero Resources Appalachian Corp. Address: 1625 17th Street Casing & Tubing drilling Used in drilling Left in well Address: Denver, CO 80202 20" 94# 40' 40' 40' 476' 476' 13-3/8" 55# 476' 476' 476' 13-3/8" 55# 476' 476' 13-3/8" 55# 36# 2620' 2620' 2620' 2620' 17,129' 17,129' 17,129' 17,129' 17,129' 17,129' 17,129' 17,129' 17,129' 17,117' 17,129' 17	Deg. 20 Min. 30 Sec. Deg. 22 Min.		County: Harrise	on		
Longitude 9173' Feet West of 80 Deg. 22 Min. 30 Sec. Company: Antero Resources Appalachian Corp. Casing & Used in drilling Left in well drilling Denver, CO 80202 20" 94# 40' 40' Agent: CT Corporation System 13-3/8" 55# 476' 476' Inspector: Tristan Jenkins 9-5/8" 36# 2620' 2620' Date Permit Issued: 5/24/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Commenced: 6/4/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Completed: 8/5/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A N/A Date Permission granted on: N/A Rig	Casing & Used in drilling	Latitude: 8728' Feet South of 39 Deg.	20 Min.	00 Sec		
Address: 1625 17th Street Casing & Tubing Used in drilling Left in well Denver, CO 80202 20" 94# 40' 40' Agent: CT Corporation System 13-3/8" 55# 476' 476' Inspector: Tristan Jenkins 9-5/8" 36# 2620' 2620' Date Permit Issued: 5/24/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Commenced: 6/4/2011 6/4/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A N/A Date Permission granted on: N/A N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Total Measured Depth (ft): 153'	Casing & Tubing Used in drilling Left in well Cement fill up Cu. Ft. 20" 94# 40' 40' 38 Cu. Ft. Class A 13-3/8" 55# 476' 476' 661 Cu. Ft. Class A 9-5/8" 36# 2620' 2620' 1067 Cu. Ft. Class A 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' 7117' 7117' ant drilled) 7117' 7117' 7117'	Longitude 9173' Feet West of 80 Deg	. <u>22</u> Min.	30 Sec	.	
Address: 1625 17th Street Casing & Tubing Used in drilling Left in well Denver, CO 80202 20" 94# 40' 40' Agent: CT Corporation System 13-3/8" 55# 476' 476' Inspector: Tristan Jenkins 9-5/8" 36# 2620' 2620' Date Permit Issued: 5/24/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Commenced: 6/4/2011 6/4/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A N/A Date Permission granted on: N/A N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Total Measured Depth (ft): 153'	Casing & Used in drilling					
Casing & Used in Tubing Left in Well drilling Denver, CO 80202 20" 94# 40' 40' Agent: CT Corporation System 13-3/8" 55# 476' 476' Inspector: Tristan Jenkins 9-5/8" 36# 2620' 2620' Date Permit Issued: 5/24/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Commenced: 6/4/2011 8/5/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A N/A 7117' Date Permission granted on: N/A Rig 7049' TVD (deepest point drilled) Total Vertical Depth (ft): 7049' TVD (deepest point drilled) 7049' TVD (BHL) Fresh Water Depth (ft): 153' 153'	Tubing drilling up Cu. Ft. 20" 94# 40' 40' 38 Cu. Ft. Class A 13-3/8" 55# 476' 476' 661 Cu. Ft. Class A 9-5/8" 36# 2620' 2620' 1067 Cu. Ft. Class A 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' at drilled) D (BHL)	Company: Antero Resources Appalachian Corp.			T- 2: "	T 0 611
Denver, CO 80202 20" 94# 40' 40' Agent: CT Corporation System 13-3/8" 55# 476' 476' Inspector: Tristan Jenkins 9-5/8" 36# 2620' 2620' Date Permit Issued: 5/24/2011 5-1/2" 20# 17,129' 17,129' Date Well Work Commenced: 6/4/2011 Date Well Work Completed: 8/5/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A Date Permission granted on: N/A Rotary	20" 94# 40' 40' 38 Cu. Ft. Class A 13-3/8" 55# 476' 476' 661 Cu. Ft. Class A 9-5/8" 36# 2620' 2620' 1067 Cu. Ft. Class A 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' ant drilled) D (BHL)	1625 17th Street			Left in Well	
Agent: CT Corporation System Inspector: Tristan Jenkins Date Permit Issued: 5/24/2011 Date Well Work Commenced: 6/4/2011 Date Well Work Completed: 8/5/2012 Date Permission granted on: N/A Rotary ✓ Cable Rig Total Vertical Depth (ft): 7049 TVD (deepest point drilled) Total Measured Depth (ft): 17,129 MD, 7049 TVD (BHL) Fresh Water Depth (ft.): 153'	13-3/8" 55# 476' 476' 661 Cu. Ft. Class A 9-5/8" 36# 2620' 2620' 1067 Cu. Ft. Class A 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' at drilled) D (BHL)	Address:			40'	
Inspector: Tristan Jenkins Date Permit Issued: 5/24/2011 Date Well Work Commenced: 6/4/2011 Date Well Work Completed: 8/5/2012 Verbal Plugging: N/A Date Permission granted on: N/A Rotary ✓ Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	9-5/8" 36# 2620' 2620' 1067 Cu. Ft. Class A 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' at drilled) D (BHL)					661 Cu. Ft. Class A
Inspector: Tristan Jerkins Date Permit Issued: 5/24/2011 Date Well Work Commenced: 6/4/2011 Date Well Work Completed: 8/5/2012 Verbal Plugging: N/A Date Permission granted on: N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	9-5/8 36# 2020 2020 5-1/2" 20# 17,129' 17,129' 4275 Cu. Ft. Class H 2-3/8" 4.6# 7117' at drilled) D (BHL)	Agont.				
Date Permit Issued: 5/24/2011 Date Well Work Commenced: 6/4/2011 Date Well Work Completed: 8/5/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A Date Permission granted on: N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	2-3/8" 4.6# 7117' nt drilled) D (BHL)					
Date Well Work Completed: 8/5/2012 2-3/8" 4.6# 7117' Verbal Plugging: N/A Date Permission granted on: N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	nt drilled) D (BHL)		5-1/2" 20#	17,129	17,129	4270 00.7 1. 0.000 17
Date Well Work Completed: Verbal Plugging: N/A Date Permission granted on: N/A Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	nt drilled) D (BHL)	Date Well Work Commenced: 6/4/2011				
Date Permission granted on: N/A Rotary ✓ Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	D (BHL)	Date Well Work Completed: 8/5/2012	2-3/8" 4.6#	7117'		
Date Permission granted on: N/A Rotary ✓ Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	D (BHL)	Verbal Plugging: N/A			<u> </u>	
Rotary Cable Rig Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	D (BHL)					
Total Vertical Depth (ft): 7049' TVD (deepest point drilled) Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'	D (BHL)					
Total Measured Depth (ft): 17,129' MD, 7049' TVD (BHL) Fresh Water Depth (ft.): 153'			d)			
Fresh Water Depth (ft.): 153'		100 to 10	L)			
Plesh Water Depth (M.).		Total Measured Deput (14).				
		Plesii Water Deptii (t).	 	 		
San Water Depth (14.).		Sait Water Deptif (10.).				
Is coal being mined in area (N/Y)? N	n mined at surface	Is coal being mined in area (N/Y)?	and at surface	 		
Coal Depths (ft.): Deepest known coal seam mined at surface	Tilliled at surface		led at surface	 		
Void(s) encountered (N/Y) Depth(s) N, N/A		Void(s) encountered (N/Y) Depth(s) N, N/A				
	· · · · · · · · · · · · · · · · · · ·	PEN FLOW DATA (If more than two producing forma	tions please inclu	ude additional	data on separate	: sheet)
PEN FLOW DATA (If more than two producing formations please include additional data on separate s	ormations please include additional data on separate sheet)	Producing formation Marcellus Pa	y zone depth (ft)		OH)	
Producing formation Marcellus Pay zone depth (ft) 6372 113 (1997)	Pay zone depth (π) $65/2$ 10	Gas: Initial open flowMCF/d Oil: Initial open	I IIOW_IVAE	שעטפ		
Producing formation Marcellus Pay zone depth (ft) 03/2 1/5 (15)/ Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d	Pay zone depth (ft) 05/2 1/5 (15)/ open flow N/A Bbl/d					
Producing formation Marcellus Pay zone depth (ft) 05/2 10 (15) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8,881 MCF/d Final open flow N/A Bbl/d	Pay zone depth (ft) 05/2 10 (10) open flow N/A Bbl/d pen flow N/A Bbl/d		ofter Ho			
Producing formation Marcellus Pay zone depth (ft) 05/2 10 (197) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8.881 MCF/d Final open flow N/A Bbl/d Time of open flow between initial and final tests N/A Hours	Pay zone depth (ft) 05/2 1/5 (15)/ open flow N/A Bbl/d pen flow N/A Bbl/d pests N/A Hours	Static rock Pressure 5300 psig (surface pressure)	arterrio			
Producing formation Marcellus Pay zone depth (ft) 03/2 10 (197) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8,881 MCF/d Final open flow N/A Bbl/d	Pay zone depth (ft) 05/2 1/0 (10)/ open flow N/A Bbl/d pen flow N/A Bbl/d pests N/A Hours Tosure) after Hours	Second producing formation Pay	zone depth (ft)_			7
Producing formation Marcellus Pay zone depth (ft) 5/2 1/5 (197) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8.881 MCF/d Final open flow N/A Bbl/d Time of open flow between initial and final tests N/A Hours Static rock Pressure 3300 psig (surface pressure) after Hours	Pay zone depth (ft) 05/2 1/0 (10)/ open flow N/A Bbl/d pen flow N/A Bbl/d pests N/A Hours Tosure) after Hours	Gast Initial open flow MCF/d Oil: Initial open	n flowI	Bbi/a		3 6
Producing formation Marcellus Pay zone depth (ft) 93/2 1/5 (104) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8.881 MCF/d Final open flow N/A Bbl/d Time of open flow between initial and final tests N/A Hours Static rock Pressure 3300 psig (surface pressure) after ————————————————————————————————————	Pay zone depth (ft) 05/2 1/0 (197) open flow N/A Bbl/d pen flow N/A Bbl/d pests N/A Hours resure) after Hours	Final open flow MCF/d Final open f	lowB	sbi/d		_
Gas: Initial open flowMCF/d Oil: Initial open flowBbl/d Final open flow 8,881MCF/d Final open flowN/ABbl/d Time of open flow between initial and final testsN/AHours Static rock Pressure 3300psig (surface pressure) afterHours Second producing formationPay zone depth (ft) Gas: Initial open flowMCF/d Oil: Initial open flowBbl/d Final open flowBbl/d	Pay zone depth (ft)	Time of open flow between initial and final tests_	Hou	rs		က်
Producing formation Marcellus Pay zone depth (ft) 0372 105 (1047) Gas: Initial open flow MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 8.881 MCF/d Final open flow N/A Bbl/d Time of open flow between initial and final tests N/A Hours Static rock Pressure 3300 psig (surface pressure) after Hours Second producing formation Pay zone depth (ft)	Pay zone depth (ft)					ָד ד ַ ד

that the information is true, accurate, and complete.

Were core samples taken? Yes	No X Were	cuttings caught during drilling? Yes	No_X
		Yes. CBL.	
Were Electrical, Mechanical or Geophy	sical logs recorded on this well?	If yes, please list	for Southern Unit 2H.
This is a subsequent well. Afterd they folk whether logs on the	s and their off a finding part (constitution)		
EDACTIDING OR STIMILLATING	G, PHYSICAL CHANGE, ETC ORD OF THE TOPS AND B	1). DETAILS OF PERFORATED I . 2). THE WELL LOG WHICH IS A SY OTTOMS OF ALL FORMATIONS, I E TO TOTAL DEPTH.	SIEMATIC
Perforated Intervals, Fracturing, or Stir	nulating:		
Perforations: 7127' - 16,798' MI			
		Vater carrying 1,114,000# 100 mes	<u>sn,</u>
4,132,200# 40/70 and 2,565,50	0# 20/40 sand.		
Plug Back Details Including Plug Type	e and Depth(s):		
Formations Encountered: Surface:	Top Depth	/ Bottom	<u>Depth</u>
	1,402'	1,494'	
Big Lime Big Injun	1,495'	1,907'	
Santz Sand	1,908'	1,964'	
Fifty Foot Sand	1,965'	2,162'	
Gordon	2,163'	2,402'	
	2,403'	2,471'	
Fifth Sandstone	2,472'	3,134'	
Bayard Speechley	3,135'	3,309'	
Balltown	3,310'	3,832'	
Bradford	3,833'	4,419'	
	4,420'	4,809'	
Benson Alexander	4,810'	5,004'	
	5,005'	5,589'	
Elk	5,590'	6,278'	
Rhinestreet	6,279'	6,731'	
Sycamore SS	6,732'	6,756'	
Burkett	6,757'	6,884'	
Tully	6,885'	6,971'	
Hamilton	6,972'	7,049' TVD	
Marcellus	0,312	· / = /-	

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

API #:	47-033-05553	
DATE:	11/13/2012	T

OCATION: Elevation: 1273	Quadrangle: _	West Milford		
District: Union	_ County: Harris	son		
	g. <u>15</u> Min		c.	
Longitude 973 Feet West of 80 De	g. 25 Min.	.00 Se	c.	
Company: Antero Resources Appalachian Corp.				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 54.5#	490'	490'	681 Cu. Ft. Class A
Inspector: Tristan Jenkins	9 5/8" 36#	2,419'	2,419'	985 Cu. Ft. Class A
Date Permit Issued: 6/8/2011	5 1/2" 20#	15,791'	15,791'	3968 Cu. Ft. Class H
Date Well Work Commenced: 6/10/2011				
Date Well Work Completed: 7/25/2012	2 3/8" 4.7#	6,874'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 7030' TVD (deepest point drilled	n			
Total Measured Depth (ft): 15,791' MD, 7030' TVD (BHI	.)			
Fresh Water Depth (ft.): est. 65', 80'				
Salt Water Depth (ft.): 780', 1700', 2390'				1
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Deepest known coal seam min	+			
Void(s) encountered (N/Y) Depth(s) N, N/A			 	†
Gas: Initial open flowMCF/d Oil: Initial open Final open flow 6111MCF/d Final open flow Time of open flow between initial and final testsStatic rock Pressure 3200psig (surface pressure) a	zone depth (ft <u>) 6</u> flow Bbl. w Bbl Hours fter Hours	<u>932' TV</u> D (To I/d /d	p)	n
Second producing formation Pay zo				EFI EV
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow			3 7	OFFICE OF
Time of open flow between initial and final tests	WBOI/ Hours	u	i i	를 - 유
Static rock Pressurepsig (surface pressure) a		;	ŕ	
tify under penalty of law that I have personally examined			2	שב שב

Were core samples taken?	YesNo_X	ere cuttings caught during drilling? Yes X No
		? If yes, please list Yes, CBL, Photo Density/
	A BELOW PUT THE FOLLOWING IULATING, PHYSICAL CHANGE, ET FAL RECORD OF THE TOPS AND BY THE WELLBORE FROM SURFACE	: 1). DETAILS OF PERFORATED INTERVALS, C. 2). THE WELL LOG WHICH IS A SYSTEMATIC BOTTOMS OF ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturi		
Perforations:7,672' to 15	5,729' (1548 holes)	
Frac'd w/ 11,000 gals 15	5% HCL Acid 170 950 bble Stiel 1	Vater carrying 838,260# 100 mesh,
3,648,990# 40/70 and 1	968 940# 20/40 and	Vater carrying 838,260# 100 mesh,
Plug Back Details Including P	lug Type and Depth(s): N/A	
	IV/A	
Formations Encountered:	_	
Surface:	Top Depth	/ Bottom Depth
Big Lime	1,458'	
Big Injun	1,574'	1,573'
Fifty Foot Sand	1,969'	1,968'
Gordon	2,120'	2,119'
Fifth Sandstone	2,389'	2,388'
Bayard	2,446'	2,445'
Speechley	3,090'	3,089'
Balltown	3,302'	3,301'
Bradford	3,799'	3,798'
Benson	4,399'	4,398'
Alexander	4,708'	4,707'
Elk	4,708 4,925'	4,924'
Sycamore SS	4,925 6,138'	6,137'
Sonyea	6,283'	6,282'
Middlesex	6,473'	6,472'
West River	6,580'	6,579'
Burket	6,706'	6,705'
Tully	6,735'	6,734'
Hamilton		6,855'
Marcellus	6,856'	6,931'
	6,932'	7,030' TVD

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

API#:	47-033-05560		
DATE:	11/13/2012	Ï	

Farm name: C Norman Matheny & Wandal Matheny	Operator Well	No.: Nelson Uni	t 2H	<u></u>
LOCATION: Elevation: 1273'	Quadrangle: V	Vest Milford		
District: Union	County: Harris	on		
Latitude: 3607 Feet South of 39 Deg.			•	
Longitude 973 Feet West of 80 Deg.			•	
Company: Antero Resources Appalachian Corp				
Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 55#	433'	433'	602 Cu. Ft. Class A
Inspector: Tristan Jenkins	9 5/8" 36#	2,505'	2,505'	1020 Cu. Ft. Class A
Date Permit Issued: 7/11/2011	5 1/2 20#	16,312'	16,312'	4085 Cu. Ft. Class H
Date Well Work Commenced: 12/17/2011				
Date Well Work Completed: 7/1/2012	2 3/8 4.7#	7,360'		
Verbal Plugging: N/A			ļ	
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 7035' TVD (deepest point drilled)				
Total Measured Depth (ft): 16312' MD, 6978' TVD (BHL)			<u> </u>	
Fresh Water Depth (ft.): est. 65'				
Salt Water Depth (ft.): est. 815'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Deepest known coal seam mine	d at surface	1	<u> </u>	
Void(s) encountered (N/Y) Depth(s) N, N/A			<u> </u>	
OPEN FLOW DATA (If more than two producing formation	ons nlease inclu	ıde additional d	lata on separate	sheet)
Producing formation Marcellus Pay	zone depth (ft)	6996' TVD (To	p)	•
Gas: Initial open flow MCF/d Oil: Initial open f				
Final open flow 3144 MCF/d Final open flow	w N/A BI	bl/d		
Time of open flow between initial and final tests NA	Hour	s		
Static rock Pressure 3200 psig (surface pressure) a	fterHou	ırs		
Day 70	one depth (ft)		2	
	•	Bbl/d	5	NA TO
Gas: Initial open flowMCF/d Oil: Initial open flowMCF/d Final open flowMCF/d Final open flow				
Time of open flow between initial and final tests				聖一紹
Static rock Pressurepsig (surface pressure) a				严 解
I certify under penalty of law that I have personally examined		or with the info	rmation submitt	econ this document and
all the attachments and that, based on my inquiry of those indi	ividuals immed	iately responsil	ole for obtaining	the Aformation Believe
that the information is true, accurate, and complete.			·	11. FT S
A A	d 1-		11/15/11	X ==
			Date	

Signature

Were core samples taken? Yes	No X Were c	uttings caught during drilling? YesNo_	X
were core samples taken.		Yes. CBL	
Were Electrical, Mechanical or Geophysi	cal logs recorded on this well? If	yes, please fist	or Unit 1H.
This is a subsequent well. Antero only runs wireline logs on the fi	ist well on a multi-pao (nawkei unit (n Ariii 47-055-0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	, PHYSICAL CHANGE, E1C. 2 RD OF THE TOPS AND BO). DETAILS OF PERFORATED INTER 2). THE WELL LOG WHICH IS A SYSTEM TTOMS OF ALL FORMATIONS, INCL TO TOTAL DEPTH.	
Perforated Intervals, Fracturing, or Stimu			
Perforations: 7,425'-16,247 (1794	holes)	ater carrying 1,058,304# 100 mesh,	
Frac'd w/ 13,000 gals 15% HCL	H# 20/40 sand	action ying 1,000,00	
3,991,846# 40/70 and 2,433,333	9# 20/40 Sanu.		
Plug Back Details Including Plug Type	and Depth(s): N/A		
	Tax Donth	/ Bottom Depth	<u>1</u>
Formations Encountered:	Top Depth		-
Surface:			
Big Lime	1,422'	1,535'	
Big Injun	1,536'	1,813'	
Gantz Sand	1,814'	1,940'	
Fifty Foot Sand	1,941'	2,084'	
Gordon	2,085'	2,362'	
Fifth Sandstone	2,363'	3,062'	
• • • • •	3,063'	3,276'	
Speechley	3,277'	3,772'	
Balltown	3,773'	4,375'	
Bradford	4,376'	4,677'	
Benson	4,678'	4,911'	
Alexander	4,912'	5,606'	
Elk	<u> </u>	6,295'	
Rhinestreet	5,607'	6,374'	
Sycamore SS	6,296'	6,556'	
Sonyea	6,375'	6,661'	
Middlesex	6,557'	6,713'	
West River	6,662'	•	
Genundewa	6,714'	6,756'	
Burket	6,757'	6,785'	
Tully	6,786'	6,908'	
Hamilton	6,909'	6,995'	
Marcellus	6,996'	7,035' TVD	

Marcellus

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	11/13/2012	
API #:	47-033-05603	

Farm name: Patrick Cunningham	-1	Oper	ator Well No.: <u>F</u>	Plant Unit 1H	
LOCATION: Elevation: 1312	2'	Quad	rangle: Wolf Sur	nmit, WV 7.5'	
District: Coal		Coun	ty: Harrison		
Latitude: 2,639	Feet South of 39	Deg. 20	Min. 00	Sec.	
T = 14 4 = 40.440	F 4 337 4 - C 80			_	

_Deg. 25 _Min. 00 Feet West of 80 Antero Resources Appalachian Corp Company: Casing & Used in Left in well Cement fill 1625 17th Street Address: drilling up Cu. Ft. Tubing Denver, CO 80202 20" 94# 40' 38 Cu. Ft. Class A 40' **CT Corporation System** 706 Cu. Ft. Class A 13-3/8" 55# 508' 508' Agent: Tristan Jenkins 9-5/8" 36# 2,420' 2,420' 985 Cu. Ft. Class A Inspector: 5-1/2" 20# 13,454' 13,454' 3325 Cu. Ft. Class H Date Permit Issued: 3/26/2012 Date Well Work Commenced: 4/15/2012 7/20/2012 2-3/8" 4.7# 7266' Date Well Work Completed: N/A Verbal Plugging: N/A Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 7274' (deepest point drilled) Total Measured Depth (ft): 13454' MD, 7192' TVD (BHL) Fresh Water Depth (ft.): 274' Salt Water Depth (ft.): est. 1148' Is coal being mined in area (N/Y)? No Coal Depths (ft.): est. 136', 168' Void(s) encountered (N/Y) Depth(s) N, N/A

Producing formation Marcellu		Pay zone o		<u>ν</u> υ (10p)			
Gas: Initial open flow							
Final open flow 3772	_MCF/d	Final open flow N/A	Bbl/d				
Time of open flow between	n initial a	nd final tests N/A	Hours				
Static rock Pressure 3300	_psig (su	rface pressure) after	Hours				
Second producing formation_		Pay zone de	pth (ft)		EHV EHV	73	OFFIC
Gas: Initial open flow	_MCF/d (Oil: Initial open flow_	Bbl/d		東海	7	F
Final open flow	_MCF/d	Final open flow	Bbl/d		老	S	HA HA
Time of open flow between	n initial a	nd final tests	Hours		豆		무유
Static rock Pressure	_psig (su	rface pressure) after	Hours		Z	5	22
certify under penalty of law that I	have pers	onally examined and a	m familiar with th	ne information sub	mitted	this	cungent
I the attachments and that, based of	on my inq	uiry of those individual	ls immediately re	sponsible for obtain	ining the i	nform	ntion De l
at the information is true, accurate					Ċ,	`` #	= 5

Signature

		cuttings caught during drilling?	
Were Electrical, Mechanical or Geophysi This is a subsequent well. Antero only runs wireline logs on the	cal logs recorded on this well? I	f yes, please list CBL	
This is a sousequent well. Attend only rutts whether rogs on the	irist well on a multi-pao (Haney Unit 1H API) 47-033	-U5427). Please reterence wireline logs submitted with	n Form WR-35 for Haney
NOTE. IN THE ADEA DELOW	DUT THE FOLLOWING.	1) DETAILS OF DEDEODA	TED INTER
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING,			
DETAILED GEOLOGICAL RECO	RD OF THE TOPS AND BO	OTTOMS OF ALL FORMAT	IONS. INCLU
COAL ENCOUNTERED BY THE W	ELLBORE FROM SURFACE	TO TOTAL DEPTH.	ŕ
Perforated Intervals, Fracturing, or Stimu	lating:		
Perforations: 7,390'-13,389' (1056	holes)		
Frac'd w/ 8,000 gals 15% HCL A	cid, 113,675 bbls Slick Wa	ter carrying 614,900# 100 r	mesh,
2,282,900# 40/70 and 1,201,100#	20/40 sand.		
Plug Back Details Including Plug Type an	nd Depth(s): N/A		
Plug Back Details Including Plug Type at	nd Depth(s): N/A	***************************************	
Plug Back Details Including Plug Type an	nd Depth(s): N/A		
Plug Back Details Including Plug Type and	nd Depth(s): N/A		
Formations Encountered:	nd Depth(s): N/A Top Depth	/ E	Bottom Depth
		/ E	Bottom Depth
Formations Encountered:			-
Formations Encountered: Surface:	Top Depth	, E 3,498 3,961	· ·
Formations Encountered: Surface: Sand/silt/shale	Top Depth	3,498	
<u>Formations Encountered:</u> <u>Surface:</u> Sand/silt/shale Balltown	Top Depth 0 3,499'	3,498 3,961	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford	Top Depth 0 3,499' 3,962'	3,498 3,961 4,634	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson	Top Depth 0 3,499' 3,962' 4,635' 4,932'	3,498 3,961 4,634 4,931 5,149	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander	Top Depth 0 3,499' 3,962' 4,635'	3,498 3,961 4,634 4,931	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander Elk	Top Depth 0 3,499' 3,962' 4,635' 4,932' 5,150'	3,498 3,961 4,634 4,931 5,149 5,606	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander Elk Rhinestreet	Top Depth 0 3,499' 3,962' 4,635' 4,932' 5,150' 5,607'	3,498 3,961 4,634 4,931 5,149 5,606 6,468	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander Elk Rhinestreet Sycamore SS	Top Depth 0 3,499' 3,962' 4,635' 4,932' 5,150' 5,607' 6,469' 6,920'	3,498 3,961 4,634 4,931 5,149 5,606 6,468 6,919	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander Elk Rhinestreet Sycamore SS Burket	Top Depth 0 3,499' 3,962' 4,635' 4,932' 5,150' 5,607' 6,469' 6,920' 6,949'	3,498 3,961 4,634 4,931 5,149 5,606 6,468 6,919 6,948 7,078	
Formations Encountered: Surface: Sand/silt/shale Balltown Bradford Benson Alexander Elk Rhinestreet Sycamore SS Burket Tully	Top Depth 0 3,499' 3,962' 4,635' 4,932' 5,150' 5,607' 6,469' 6,920'	3,498 3,961 4,634 4,931 5,149 5,606 6,468 6,919 6,948	

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Were core samples taken? Yes]	No X Were cutti	ings caught during drilling? Ye	s N
Were Electrical, Mechanical or Geophysi	ical logs recorded on this well? If yes	s nlease list CBL	
This is a subsequent well. Antero only runs wirefine logs on the	first well on a multi-pad (Haney Unit 1H API# 47-033-05427	'). Please reference wireline logs submitted with Fo	orm WR-35 for Ha
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECO COAL ENCOUNTERED BY THE W	, PHYSICAL CHANGE, ETC. 2). RD OF THE TOPS AND BOTT	THE WELL LOG WHICH IS OMS OF ALL FORMATION	S A SYSTE
Perforated Intervals, Fracturing, or Stimu	lating:		
,	G .		
Perforations: 7,526'-13,271' (984	holes)		
Frac'd w/ 7,500 gals 15% HCL A	cid, 97,858 bbls Slick Water c	arrying 511,500# 100 me	sh,
1,981,100# 40/70 and 1,203,500	# 20/40 sand.		
Plug Back Details Including Plug Type a	nd Depth(s): N/A		
Formations Encountered:	nd Depth(s): N/A Top Depth	/ Bo	ottom Depth
		/ Bo	ottom Depth
Formations Encountered:		/ Bo	ottom Depth
Formations Encountered: Surface:	Top Depth		ottom Depth
Formations Encountered: Surface: Sand/silt/shale	Top Depth	2,533'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.)	Top Depth 0 2,534'	2,533' 3,183'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley	Top Depth 0 2,534' 3,184'	2,533' 3,183' 3,449'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown	Top Depth 0 2,534' 3,184' 3,450'	2,533' 3,183' 3,449' 3,945'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford	Top Depth 0 2,534' 3,184' 3,450' 3,946'	2,533' 3,183' 3,449' 3,945' 4,564'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander Elk	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823' 5,033'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032' 5,815'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander Elk Rhinestreet	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823' 5,033' 5,816'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032' 5,815' 6,737'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander Elk Rhinestreet Sonyea	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823' 5,033' 5,816' 6,738'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032' 5,815' 6,737'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander Elk Rhinestreet Sonyea Burket Tully	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823' 5,033' 5,816' 6,738' 6,918'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032' 5,815' 6,737' 6,917'	ottom Depth
Formations Encountered: Surface: Sand/silt/shale Fifth Sandstone (est.) Speechley Balltown Bradford Benson Alexander Elk Rhinestreet Sonyea Burket	Top Depth 0 2,534' 3,184' 3,450' 3,946' 4,565' 4,823' 5,033' 5,816' 6,738' 6,918' 6,938'	2,533' 3,183' 3,449' 3,945' 4,564' 4,822' 5,032' 5,815' 6,737' 6,917' 6,937' 7,063'	ottom Depth